

Appl. No. 09/844,840
Amdt. Dated October 4, 2004
Reply to Office Action of September 1, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled).
2. (Previously Presented) The apparatus of claim 5, wherein the plurality of pixels are activated from top to bottom.
3. (Previously Presented) The apparatus of claim 5, wherein the plurality of pixels are activated from bottom to top.
4. (Previously Presented) The apparatus of claim 5, wherein a set of synchronizers is configured to activate consecutive rows of the plurality of pixels.
5. (Previously Presented) An apparatus comprising:

a plurality of pixels arranged as a plurality of columns;
a light source located at a bottom or top of each column, the light source shining a predetermined combination of red, green, and blue light onto a ferro-electric liquid crystal display (FLCD) lens from above or below;
wherein each of said columns includes:

a plurality of ferroelectric liquid crystal display (FLCD) lenses arranged such that each FLCD lens shifts received light onto a combiner prism or onto a neighboring FLCD lens until the light reaches a top or bottom pixel in the column, a FLCD lens of a top row of the column tilts over red, green, and blue lights onto the combiner prism, and

a synchronizer coupled to the pixels of each of the plurality of columns and configured to activate the plurality of pixels by row location.
6. (Previously Presented) An apparatus comprising:

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a plurality of pixels arranged as a plurality of columns;
a light source located at a bottom or top of each column, the light source shining a predetermined combination of red, green, and blue light onto a ferro-electric liquid crystal display (FLCD) lens from above or below;

wherein each of said columns includes:

a plurality of ferro-electric liquid crystal display (FLCD) lenses arranged such that each FLCD lens shifts received light onto a combiner prism or onto a neighboring FLCD lens until the light reaches a top or bottom pixel in the column, and

a synchronizer coupled to the pixels of each of the plurality of columns and configured to activate the plurality of pixels by row location, the synchronizer determines how fast to activate the next row and tilt it onto the next set of combiner prisms.

7. (Previously Presented) An apparatus comprising:

a plurality of pixels arranged as a plurality of columns;

a light source located at a bottom or top of each column, the light source shining a predetermined combination of red, green, and blue light onto a ferro-electric liquid crystal display (FLCD) lens above or below it;

wherein each of said columns includes:

a plurality of ferro-electric liquid crystal display (FLCD) lenses arranged such that each FLCD lens shifts received light onto a combiner prism or onto the FLCD lens above or below it, until the light reaches a top or bottom pixel in the column, and

a synchronizer coupled to the pixels of each of the plurality of columns and configured to activate the plurality of pixels by row location, the synchronizer comprises a digital timer connected to a voltage controller.

8. (Previously Presented) An apparatus comprising:

a plurality of pixels arranged as a plurality of columns;

a light source shining a predetermined combination of red, green, and blue light onto a ferro-electric liquid crystal display (FLCD) lens above or below it, the red, green, and blue light

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sources are placed front to back or side to side, at the top or bottom of each column, depending on an amount of refractive index available,

wherein each of said columns includes:

a plurality of FLC D lenses arranged such that each FLC D lens shifts received light onto a combiner prism or onto the FLC D lens above or below it until the light reaches a top or bottom pixel in the column; and

a synchronizer coupled to the pixels of each of the plurality of columns and configured to activate the plurality of pixels by row location.

9. (Original) The apparatus of claim 6, wherein a gap is formed between two FLC D lenses to account for the refractive index.

10. (Previously Presented) The apparatus of claim 5, wherein an angle of the tilt is controlled by changing current intensity applied to each FLC D lens by the synchronizer.

11. (Previously Presented) The apparatus of claim 5, wherein an angle of the tilt is controlled by a refractive index of the FLC D lens and the combiner prism.

12. (Previously Presented) The apparatus of claim 5 wherein each of the plurality of columns comprises: a frosted glass-like treatment to eliminate or decrease the number of speckles obtained from the light source.

13. (Cancelled)

14. (Original) The apparatus of claim 9, wherein the gap comprises on or air or plastic.

15. (Cancelled).

16. (Previously Presented) A method comprising:

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arranging a plurality of ferroelectric liquid crystal display (FLCD) lenses as a plurality of columns such that each FLCD lens in a column shifts received light onto a combiner prism or onto the FLCD lens above or below it, until the light reaches a top or bottom pixel in the column;

shining a predetermined combination of red, green, and blue light onto a FLCD lens at a top or bottom of each column;

synchronizing each of the plurality of columns and activating the plurality of pixels by row location; and

activating each row of pixels during said synchronizing, a voltage controller connected to an FLCD lens causes the FLCD lens to tilt the light coming from below or above it onto a combiner prism.

17. (Previously Presented) The method of claim 16 comprising:

activating the plurality of pixels from one of top to bottom and bottom to top..

18. (Previously Presented) A method comprising:

arranging a plurality of ferroelectric liquid crystal display (FLCD) lenses as a plurality of columns such that each FLCD lens in a column shifts received light onto a combiner prism or onto the FLCD lens above or below it, until the light reaches a top or bottom pixel in the column;

shining a predetermined combination of red, green, and blue light onto a FLCD lens at a top or bottom of each column;tilting over red, green, and blue lights onto a combiner prism; and

synchronizing each of the plurality of columns and activating the plurality of pixels by row location.

19. (Previously Presented) A method comprising:

arranging a plurality of ferroelectric liquid crystal display (FLCD) lenses as a plurality of columns such that each FLCD lens in a column shifts received light onto a combiner prism or onto the FLCD lens above or below it, until the light reaches a top or bottom pixel in the column;

shining a predetermined combination of red, green, and blue light onto a FLCD lens at a top or bottom of each column;

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synchronizing each of the plurality of columns and activating the plurality of pixels by row location; and

arranging the red light, the green light, and the blue light from front to back or side by side, at the bottom or top of each column, depending on an amount of refractive index available.

20. (Previously Presented) The method of claim 16, comprising:

eliminating or decreasing a number of speckles obtained from a light source by use of a frosted front facing and using a black matte back wall to show a black pixel when no light is emitted.

21. (Original) The method of claim 18, wherein said tilting is at a predetermined angle due to a changing voltage value to an FLCD lens.

22. (Original) The method of claim 19, comprising:

providing a gap between two FLCD lenses to account for the refractive index..

23. (Original) The method of claim 22, wherein the gap is formed from one of air and plastic.

24-26. (Cancelled).